

ELECTROSURGICAL GENERATOR WITH ADAPTIVE POWER CONTROL

An electrosurgical generator has an output power control system that causes the impedance of tissue to rise and fall in a cyclic pattern until the tissue is desiccated. The advantage of the power control system is that thermal spread and charring are reduced. In addition, the power control system offers improved performance for electrosurgical vessel sealing and tissue welding. The output power is applied cyclically by a control system with tissue impedance feedback. The impedance of the tissue follows the cyclic pattern of the output power several times, depending on the state of the tissue, until the tissue becomes fully desiccated. High power is applied to cause the tissue to reach a high impedance, and then the power is reduced to allow the impedance to fall. Thermal energy is allowed to dissipate during the low power cycle. The control system is adaptive to tissue in the sense that output power is modulated in response to the impedance of the tissue.